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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/579,600

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Atsushi Takahashi

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QUINTERO LAW OFFICE, PC
2210 MAIN STREET, SUITE 200
SANTA MONICA, CA 90405

EXAMINER

CHIN, RANDALL E

ART UNIT

PAPER NUMBER

3723

MAIL DATE

DELIVERY MODE

10/20/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/579,600	Applicant(s) TAKAHASHI, ATSUSHI	
	Examiner Randall Chin	Art Unit 3723	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 September 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 7-19 is/are pending in the application.
- 4a) Of the above claim(s) 12-17 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 7, 9-11, 18 and 19 is/are rejected.
- 7) ☒ Claim(s) 8 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Information Disclosure Statement

1. The listing of references in the specification is not a proper information disclosure statement. 37 CFR 1.98(b) requires a list of all patents, publications, or other information submitted for consideration by the Office, and MPEP § 609.04(a) states, "the list may not be incorporated into the specification but must be submitted in a separate paper." Therefore, unless the references have been cited by the examiner on form PTO-892, they have not been considered (**see for example, references mentioned in paragraphs [0004], [0029] and [0030]**).

Specification

2. The disclosure is objected to because of the following informalities:

For clarity and consistency purposes, in the description for the reference symbols in paragraph [0023], it appears for reference symbol 1, "Radially-projecting resin filament rods" should instead read –Radially-projecting resin filaments-- (i.e., delete the term "rods" here since this causes confusion with the phrases used for reference symbols 2 and 3). Please check entire specification for consistency on this matter.

Appropriate correction is required.

Claim Objections

3. Claims 7, 18 and 19 are objected to because of the following informalities:

Claim 7, line 9, it appears that after the term “adapting”, “of” should read –to-- (see previous listing of claims dated 16 April 2009).

Claim 18, line 2, the recitation "has a radially projecting resin filaments" is grammatically improper. Also, this phrase makes it appear there is a double inclusion of elements with that already recited back in claim 7, line 2. The language of claim 18 must be clear and consistent with that set forth back in claim 7.

The recitation of “stem bristles” in both claims 18 and 19 causes confusion with “filaments” previously recited. Consistent terminology should be used with respect to “filaments” and “bristles” for a clear understanding of the scope of the claims.

Claim 19 should include a period at the end of the claim.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 7, 10, 11, 18 and 19 are rejected under 35 U.S.C. 102(b) as being anticipated by Brandli 4,395,943 (hereinafter Brandli).

As for claim 7, the patent to Brandli discloses a “small-diameter” (merely a relative expression) resin twisted brush 1 comprising a plurality of resin filaments 2 (since it's an interproximal toothbrush with **typical** plastic or resin filaments) having

Art Unit: 3723

resilience, straightenability, and suppleness, at least to a degree or minimal/infinitesimal degree (and all deemed merely relative), for that matter, at least two resilient stem resin filament rods 4, 4 (since layers 4 can be nylon or polyurethane and thus “resin” as recited in col. 2, lines 17-23), said plurality of resin filaments 2 being clamped between said at least two resilient stem resin filament rods 4, 4 (Fig. 1), said at least two resilient resin stem rods 4, 4 being twisted about one another, thereby forming said brush with helical bristles formed by said plurality of resin filaments extending radially from said at least two twisted resilient stem resin filament rods (Fig. 1), whereby said small-diameter resin twisted brush is deemed **capable of** adapting to three-dimensional deformed conditions and of recovering an initial shape (“whereby” clause is deemed merely functional).

As for claim 10, said at least two resilient stem resin filament rods 4, 4 are color-coded with a pigmented resin to indicate the size of said helical bristles (col. 2, lines 39-42).

As for claim 11, ends of said at least two resilient stem resin filament rods adjacent to said helical bristles are deemed “smoothed” (since this is merely deemed a relative term) to remove sharp edges.

As well as claim 18 is understood, the brush 1 has a radially-projecting resin filaments 2, 2 positioned at fixed intervals flanked by sections lacking stem “bristles” 2 (see open space between adjacent filaments 2, 2 in Fig. 1).

As well as claim 19 is understood, the stem resin filament rods 4, 4 are considered cut at the section lacking stem bristles (at tip end in Fig. 1) and the ends of

Art Unit: 3723

said at least two resilient stem resin filament rods adjacent to said helical bristles are smoothed to remove sharp edge. In any case, as for the term "cut" here, methods of forming are not germane to patentability in apparatus claims.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Brandli in view of Charvat 3,124,823 (hereinafter Charvat).

The patent to Brandli discloses all of the recited subject matter as set forth above with the exception of said at least two resilient stem resin filament rods being coated with a thermally fusible resin material, whereby said thermally fusible resin material is fused during manufacture of said small-diameter resin twisted brush to firmly hold said plurality of resin filaments between said at least two twisted resilient stem resin filament rods, and to prevent said at least two twisted resilient stem resin filament rods from detwisting. The patent to Charvat teaches at least two resilient stem filament rods 1, 2 being coated with a thermally fusible resin material 9 whereby said thermally fusible resin material 9 is fused during manufacture of said small-diameter resin twisted brush to firmly hold said plurality of resin filaments between said at least two twisted resilient stem resin filament rods, and to prevent said at least two twisted resilient stem resin

Art Unit: 3723

filament rods from detwisting (col. 2, lines 43-64). It would have been obvious to one of ordinary skill in the art to have provided Brandli's brush with said at least two resilient stem resin filament rods being coated with a thermally fusible resin material as taught by Charvat, whereby said thermally fusible resin material is fused during manufacture of said small-diameter resin twisted brush to firmly hold said plurality of resin filaments between said at least two twisted resilient stem resin filament rods, and to prevent said at least two twisted resilient stem resin filament rods from detwisting.

Conclusion

8. Applicant's arguments with respect to claims 7-11, 18 and 19 have been considered but are moot in view of the new ground(s) of rejection.

Allowable Subject Matter

9. Claim 8 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Randall Chin whose telephone number is (571) 272-1270. The examiner can normally be reached on Monday through Thursday and every other Friday.

Art Unit: 3723

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph Hail can be reached on (571) 272-4485. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Randall Chin/
Primary Examiner, Art Unit 3723